

Appl. No.: 10/782,096  
Amdt. Dated September 18, 2007  
Reply to Office Action of June 20, 2007

Amendments to the Specification:

Please replace the following paragraph beginning on page 3, line 29 and continuing through page 4, line 12 with the following replacement paragraph:

Figures 1A-[1E]1F show an alignment of AXMI-009 (SEQ ID NO:2) with cry1Aa (SEQ ID NO:7), cry1Ac (SEQ ID NO:8), cry1Ca (SEQ ID NO:9), cry1Ia (SEQ ID NO:10), cry3Aa1 (SEQ ID NO:11), cry3Ba (SEQ ID NO:12), cry3Bb (SEQ ID NO:13), cry4Aa (SEQ ID NO:14), cry6Aa (SEQ ID NO:15), cry7Aa (SEQ ID NO:16), cry8Aa (SEQ ID NO:17), cry10Aa (SEQ ID NO:18), cry16Aa (SEQ ID NO:19), cry19Ba (SEQ ID NO:20), cry24Aa (SEQ ID NO:21), cry25Aa (SEQ ID NO:22), cry40Aa1 (SEQ ID NO:23). Toxins having C-terminal non-toxic domains were artificially truncated as shown. Conserved group 1 is found from about amino acid residue 196 to about 217 of SEQ ID NO:2. Conserved group 2 is found from about amino acid residue 269 to about 311 of SEQ ID NO:2. Conserved group 3 is found from about amino acid residue 514 to about 556 of SEQ ID NO:2. Conserved group 4 is found from about amino acid residue 574 to about 584 of SEQ ID NO:2. Conserved group 5 is found from about amino acid residue 651 to about 661 of SEQ ID NO:2.

Please replace the paragraph on page 13, lines 3-13 with the following replacement paragraph:

Amino acid substitutions may be made in nonconserved regions that retain function. In general, such substitutions would not be made for conserved amino acid residues, or for amino acid residues residing within a conserved motif, where such residues are essential for protein activity. Examples of residues that are conserved and that may be essential for protein activity include, for example, residues that are identical between all proteins contained in the alignment of Figures 1A-[1E]1F. Examples of residues that are conserved but that may allow conservative amino acid substitutions and still retain activity include, for example, residues that have only conservative substitutions between all proteins contained in the alignment of Figures 1A-[1E]1F. However, one of skill in the art would understand that functional variants may have minor conserved or nonconserved alterations in the conserved residues.